UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/767,902	01/24/2001	Arthur Doskow	414.037CIP/10007267	2892

32127 7590 09/08/2005		EXAMINER
VERIZON CORPORATE SERVICES GROUP INC.		AL AUBAIDI, RASHA S
C/O CHRISTIAN R. ANDERSEN		

ART UNIT	PAPER NUMBER
2642	

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DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO 90C (Rev 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/767,902	DOSKOW ET AL.
	Examiner	Art Unit	
	Rasha S. AL-Aubaidi	2642	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 April 2005*.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *04/18/2005* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   Applicant's amendment filed on 04/18/2005 has been entered. Claims 1, 7, 8 and

26 have been amended. No claims have been canceled. No claims have been added.

Claims 1-32 are pending in this application, with claims 1 and 26 being independent.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Silva (US PAT # 5,987,035) in view of Heilmann et al (US PAT # 6,718,024).

Regarding claim 1, Silva teaches a communication network (PSTN or private

network, see col. 2, lines 46-47) comprising: local communication links (network line

interfaces 4, see col. 2, lines 44-47), a plurality of separately located central office

switching systems (read on different SSPs, see col. 1, lines 41-42) interconnected via

trunk circuits (read on analog trunk/line line cards 26, see col. 2, lines 44-27) for

selectively providing switched call connections between at least two of the local

communication links in response to predetermined control data messages (this is

inherent), a signaling communication system (reads on SS7 card 38, see col. 4, lines 2-5) for two-way communications of said control data messages between at least said central office switching systems, said signaling communication (SS7) system interconnecting the central office switching systems, and a signaling system security monitor (this reads on CPU 82 accessing and processing the messages with RAM 92, see col. 4, lines 35-47), separate from the central office switching systems (see col. 6, lines 11-13), said signaling system security monitor including a plurality of message templates (reads on message template 100, see col. 4, lines 56-62, col. 5, lines 1-3, also Fig. 4) corresponding to approved ones of said control data messages.

Silva does not exactly teach a signaling gateway that is separate from the central office switching systems and connected to said signaling communications system, said signaling gateway including an interface connected to a remote communications network and configured to exchange said control data messages between said remote communication network and said central office switching system by way of signaling communication system.

However, Heilmann teaches a system and method for discriminating call content types for individual telephone lines at a plurality of user sites outside of a Public Switched Telephone Network (PSTN). See abstract of the invention. The use of a gateway is obvious and a must between two networks that are communicating between each other. Heilmann also teaches the gateway including an interface (this interface

reads on the line interface unit 201, Fig. 2A, and col. 5, line 20) that is configured to exchange messages between remote communication network and said central office switching system (reads on central office 114 in Fig. 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the feature of having a signaling gateway that is configured to exchange said control data messages between two communication networks, as taught by Heilmann, into the Silva system in order to ensure that the messages, that are received and sent to each network already screened, verified, and filtered based on the set rules.

Claim 26 is rejected for the same reasons as discussed above with respect to claim 1.

Regarding claims 2 and 27, Silva teaches plurality of messages templates are associated with a plurality of service providers (see col. 1, lines 40-44).

Regarding claims 3 and 28, signaling system security monitor (this reads on CPU 82 accessing and processing the messages with RAM 92, see col. 4, lines 35-47) associates each of said control data messages with a corresponding one of said service providers and selects one of said message templates in response to the corresponding one of said service providers. This basically reads on screening the call and comparing

the content of the call by with the matching content that are already in the template

(memory/database), see Fig. 4, col. 5, lines 23-50).

Regarding claim 4, Silva teaches a memory storing sets of templates each of

said sets corresponding to control messages appropriate to particular call progress or

transaction flow (see RAM 82 and 92 where the templates stored on col. 4, lines 40-43,

also, col. 6, lines 15-29).

Regarding claims 5, 14 and 30, Silva teaches the template define message

formats, parameters and values associated with control message types selected from

ISUP (see col. 4, lines 48-50) and MTP 2 and 3, see col. 5, lines 23-30). Obviously, any

AIN type messages such as SCCP and TCAP can be used.

Claims 6 and 31 are rejected for the same reasons as discussed above with

respect to claims 3 and 4.

Regarding claims 7-8 and 32, Silva teaches signaling system security monitor

(CPU 82 accessing and processing the messages with RAM 92, see col. 4, lines 35-47,

also col. 2, lines 4-8) is configured to selectively communicate said control data

message between said signaling gateway and corresponding ones of said central office

switching systems by way of said signaling communication system in response to said

control messages satisfying criteria specified by corresponding ones of said templates

(this is obvious, see for example, col. 5, lines 23-30).

Regarding claims 9 and 20, Silva teaches signaling system security monitor

includes a memory (CPU 82 accessing and processing the messages with RAM 92, see

col. 4, lines 35-47, also col. 2, lines 4-8) storing states of respective ones of central

office systems (this is obvious and taught in Silva, since this basically reads on storing

the status of each SSP. For example, if there is an unauthorized message that is sent or

received at that particular SSP), said signaling system security monitor responsive to

said states for selecting ones of said templates (this reads on For example, if there is an

unauthorized message that is sent or received at that particular SSP then a prorate

action will be taken, see col. 5, lines 46-50).

Claims 21-23 are rejected for the same reasons as discussed above with respect

to claims 9 and 20. See also, col. 5, lines 23-45). Also, for claims 22-23, the particular

service reads on the call transfer (see col. 5, lines 64-67 and col. 6, lines 1-2).

Claim 10 recite, "Signaling gateway further comprises a signal protocol converter

configured to convert SS7 type messages to another packet data format". However,

Silva teaches the standard SS7 protocol messages may be changed (see col. 5, lines

64-67 and col. 6, lines 1-10).

Claim 11 recites, "the other packet data format is an Internet Protocol (IP)

format). Examiner takes official notice, since this is an obvious a well-known feature in

the art.

Regarding claim 12, Silva teaches signaling system security monitor (CPU 82

accessing and processing the messages with RAM 92, see col. 4, lines 35-47, also col.

2, lines 4-8) is configured to monitor information contained in an MTP Layer 3 portion of

said control data messages (see col. 4, lines 61-65).

Regarding claims 13 and 15, Silva teaches MTP Layer 3 (see col. 5, lines 23-24),

Silva also teaches information contained in said MTP Layer 3 portion of said control

data messages includes a destination point code and origination point code (First, the

destination and origination point code may read on the parameter ID, see col. 5, lines 3-

15. Also, obviously a message can contain any information desired, such as destination

and/or origination). Having a service indicator octet is an obvious and well-known

limitation.

For claims 16-19, Silva teaches that the signaling system security monitor (CPU

82 accessing and processing the messages with RAM 92, see col. 4, lines 35-47, also

col. 2, lines 4-8) configured to screen and filter the messages that are sent and received

within the network. Silva teaches does not exactly teach that the monitoring is

performed on the calling and the called party parameters. However, this is obvious,

because messages can be exchanged in the network between users (calling and called

party) therefore monitoring and filtering these messages it is a must in order to keep a

network clean (viruses and worms), plus restrict and minimize the use of emails and

other multimedia for proposes other than the work requirement (see col. 5, lines 46-63).

Claim 24 recites "said signaling system security monitor comprises a certification

agent configured to exchange and maintain encryption key certificates". This is obvious.

Regarding claim 25, Silva teaches the signaling system security monitor is

configured to issue and encrypt digital time stamps (see col. 4, lines 40-47).

Claim 29 recites "each of said templates corresponds to an appropriate one of a

call progress and transaction processing protocol". See col. 4, lines 56-67.

Response to Arguments

4.   Applicant's arguments filed 04/18/2005 have been fully considered but they are

not persuasive.

Regarding the amendment of claims 1, 7, 8, and 26, Applicant has not referred

the examiner to the support for the new limitations in the spesification.

Applicant argues "Silva specifically teaches providing 'at each SSP, a signaling unit containing a message configuration template...' Thus, from its outset, the patent disclosure teaches away from a system such as per the invention in which a common facility, located remotely from destination switches". Examiner agrees that Silva teaches signaling at each SSP containing a message configuration template. However, Examiner's rejection was not based on Silva alone. As a matter of fact, examiner admitted that Silva does not specifically teach a signaling gateway that is separate from the central office. Therefore, Heilmann was introduced to disclose a gateway that is separate from the central office (see Fig. 1), which includes an interface (see interface 201 Fig. 2A). Thus, it appears that applicant is not considering the rejection applied above as a whole, but arguing the applied references individually.

Also, Applicant argues "Silva never mentions or suggests performing any security function". Examiner respectfully disagrees for the following reason: even though Silva does not explicitly use the term "security", that does not mean there were no security rules applied to the incoming messages in Silva. Actually, Silva specifically teaches the message configuration template also permits screening of incoming messages to make sure that their contents are consistent with the specified formats of those message (see col. 2, lines 18-20). In other words, this basically means there are security rules applied against the received messages and if these messages do not comply with the rule, then those messages are rejected (col. 2, lines 21-24).

Applicant also adds "even if the message checking preformed or suggested by Silva were anything but basic message integrity checks, there still remains a difference between performing security checks at a gateway and performing them at a switch". In regard to this argument, Examiner would like to bring to applicant's attention that generally security ruled found to filter, check, and reject unwanted and prohibited messages which can be exchanged in the network between users (calling and called party). Monitoring and filtering these messages keeps the network clean (viruses and worms), plus restrict and minimize the use of emails and other multimedia for proposes other than the work requirement. Therefore, if the security checks performed at the switch, gateway or even at the customer premise, this will lead to the same end result.

Examiner believes that all other argument are already addressed in the above rejection.

Conclusion

5.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

6.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Rasha S. AL-Aubaidi whose telephone number is (571)

272-7481. The examiner can normally be reached on Monday-Friday from 8:30 am to

5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ahmad F. Matar, can be reached on (571) 272-7488.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

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SUPERVISORY PATENT EXAMINER
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Examiner
Rasha S. Al-Aubaidi
Art Unit 2642
09/01/2005